1. Write a Python program to convert kilometers to miles?

ANS: def kilometers\_to\_miles(kilometers):

return kilometers \* 0.621371

if \_\_name\_\_ == "\_\_main\_\_":

try:

kilometers = float(input("Enter the distance in kilometers: "))

miles = kilometers\_to\_miles(kilometers)

print(f"{kilometers} kilometers is equal to {miles:.2f} miles.")

except ValueError:

print("Invalid input. Please enter a valid distance in kilometers.")

1. Write a Python program to convert Celsius to Fahrenheit?

ANS: def celsius\_to\_fahrenheit(celsius):

return (celsius \* 9/5) + 32

if \_\_name\_\_ == "\_\_main\_\_":

try:

celsius = float(input("Enter the temperature in Celsius: "))

fahrenheit = celsius\_to\_fahrenheit(celsius)

print(f"{celsius} degrees Celsius is equal to {fahrenheit:.2f} degrees Fahrenheit.")

except ValueError:

print("Invalid input. Please enter a valid temperature in Celsius.")

1. Write a Python program to display calendar?

ANS: import calendar

if \_\_name\_\_ == "\_\_main\_\_":

try:

year = int(input("Enter the year (e.g., 2023): "))

month = int(input("Enter the month (1-12): "))

# Display the calendar for the specified year and month

print("\nCalendar:")

print(calendar.month(year, month))

except ValueError:

print("Invalid input. Please enter valid values for the year and month.")

1. Write a Python program to solve quadratic equation?

ANS: To solve a quadratic equation in Python, you can use the quadratic formula. The quadratic formula is given by:

x = (-b ± √(b^2 - 4ac)) / 2a

where 'a', 'b', and 'c' are the coefficients of the quadratic equation ax^2 + bx + c = 0, and 'x' is the solution.

Here's a program to solve a quadratic equation:

import cmath

def solve\_quadratic(a, b, c):

# Calculate the discriminant

discriminant = cmath.sqrt(b\*\*2 - 4\*a\*c)

# Calculate the two solutions using the quadratic formula

root1 = (-b + discriminant) / (2\*a)

root2 = (-b - discriminant) / (2\*a)

return root1, root2

if \_\_name\_\_ == "\_\_main\_\_":

try:

a = float(input("Enter the coefficient of x^2: "))

b = float(input("Enter the coefficient of x: "))

c = float(input("Enter the constant term: "))

# Call the solve\_quadratic function to find the roots

root1, root2 = solve\_quadratic(a, b, c)

print("The solutions are:")

print("Root 1:", root1)

print("Root 2:", root2)

except ValueError:

print("Invalid input. Please enter valid coefficients.")

1. Write a Python program to swap two variables without temp variable?

Ans: def swap\_variables(a, b):

a, b = b, a

return a, b

if \_\_name\_\_ == "\_\_main\_\_":

try:

var1 = input("Enter the first variable: ")

var2 = input("Enter the second variable: ")

# Call the swap\_variables function to swap the values

var1, var2 = swap\_variables(var1, var2)

print("After swapping:")

print("First variable:", var1)

print("Second variable:", var2)

except ValueError:

print("Invalid input. Please enter valid values.")